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KEYSTONE



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PUBLISHED IN THE INTEREST OF BETTER SEEDS

Vol. 16

CORNELI SEED COMPANY, ST. LOUIS, MISSOURI

Special Issue No. 1

KEYSTONE HYBRID SEED CORN FOR 1940

ARE THESE WORTH 75¢ PER ACRE?

Well, just read them over. We think you will agree that any one of them may be worth several times that amount. Yet that is the cost per acre to plant Keystone Hybrid corn, which can do all of these things for you.

- Increase Yield** — Grow your corn requirements on less land and build up those extra acres with legumes. 10 to 25% less land needed.
- Resist Drought** — Stays green longer during dry weather, greater certainty of a crop.
- Resist Wind** — Stands erect after maturity, means less back-breaking work during shucking time, and saves loss from lodged corn.
- Uniformity** — Every stalk bears an ear at uniform height, making possible the efficient use of mechanical pickers or greater ease of hand-picking.
- Uniform Maturity** — Ripens evenly so that all corn is ready to store before bad weather.

Users of Keystone Hybrids take advantage of all of these points because Keystone Hybrids are top performers in their areas of adaptation; because Keystone Hybrids are sold only where they are adapted; and because their breeding, production, and processing assure top yields of high quality grain. Why take chances with hybrids of questionable adaptation when Keystone Hybrids cost no more and are produced and sold where they yield the most.



Fig. 1. Gold blooded aristocrat. Keystone Hybrid 40 in Field Trials in St. Louis County, Missouri. Note size and quality of ear

Read the story behind Keystone hybrids, then see your Keystone dealer and order your seed for 1940 planting. Join the ranks of the thousands of progressive farmers who have found the way to bigger and better crops through the use of Keystone Seeds.

WHAT IS HYBRID CORN?

"Possibly the simplest way to give a general idea of what hybrid seed corn is, is to compare it to the mule. A mule is the first-generation cross between the mare and the ass, and partakes of the better qualities of both parents. It does not reproduce, but must be produced anew each generation, for its value is in itself, not for reproduction. A corn hybrid is the first-generation hybrid between two strains of corn. Its value is in the production of a crop of commercial corn. This corn will grow, but cannot be used for seed without a loss of yield in the succeeding generations. A corn hybrid, then, like the mule must be produced anew each generation for its value in itself, not for reproduction. During that generation good hybrids produce larger acre yields of high quality corn than do most commercial varieties. Finally, neither all mules nor all corn hybrids are efficient." —U. S. D. A. Farmers' Bulletin No. 1744.

WHY KEYSTONE HYBRIDS?

KEYSTONE HYBRIDS are hybrids whose performance, over a period of years, has definitely proved them to be superior producers in their respective areas of adaptation. They have been tested thoroughly by state agencies as well as in our own observation and yield test plots covering a wide area. Over and above these tests are the thousands of acres of KEYSTONE HYBRIDS grown on individual farms, which is after all, the most important proving ground of all.

The production of any good hybrid is based primarily on three important phases; namely, breeding, production, and processing. The highest possible standards must be maintained throughout all of these phases if the resultant product is to be of highest

possible quality. Breeding must be done on a scientific scale, with complete and accurate records; production requires the utmost in accuracy and efficiency; and finally, the processing or grading must be done carefully and thoroughly to insure that the farmer will secure an accurate drop and a uniform stand when the corn is planted.

THE BREEDING BEHIND KEYSTONE HYBRID CORN

Keystone Valley Farm, located in St. Louis County, Missouri, is the proving ground of all KEYSTONE SEEDS. Here, in addition to thousands of tests of countless varieties of garden and field seeds, is carried on a well organized program of corn breeding. Specially trained men carry on a zealous search for new inbred lines which may aid in the improvement of KEYSTONE HYBRIDS. These new lines are crossed by hand in the breeding plots and the crosses thoroughly tested in the observation and yield test plots. Standard inbred lines developed and released by the various State Experiment Stations also are used in an effort to find new combinations which will mean increased yield and more profit for the farmers who use KEYSTONE HYBRIDS.

When a new hybrid looks promising in the observation trials it is put in the competitive yield tests to determine its ability to perform in relation to hybrids already in production. If the new hybrid fails to perform as well as those already in production, it is discarded. If it proves superior to the old hybrids, it is put in production and released for commercial use. Such a policy assures the consumer that new KEYSTONE HYBRIDS when released, are thoroughly tested and must be superior performers before they are sold for general use.

Fig. 2. Breeding Plots on Keystone Valley Farm, where nearly 15,000 hand-pollinations are made annually



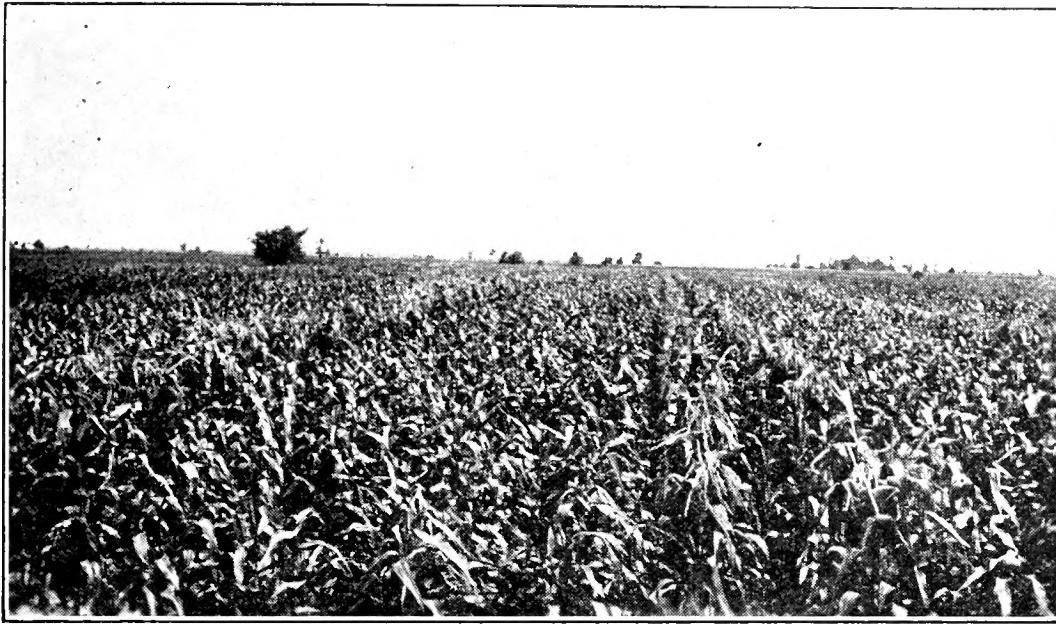


Fig. 5. Production Field of Keystone Hybrid Seed after Complete Detasseling

PRODUCTION OF KEYSTONE HYBRIDS

KEYSTONE HYBRIDS are produced by qualified growers who are experienced in the methods employed in hybrid production. All production is under the direct supervision of our own agronomist to insure that every precaution is taken and that only the most precise and thorough production methods are used.

Isolation — Complete isolation of hybrid production fields is important in prohibiting contamination by wind cross-pollination. By keeping **KEYSTONE** production fields forty to sixty rods away from any other type of corn, this danger is eliminated, thus maintaining the purity of the stock used.

Soil Conditions — ALL **KEYSTONE HYBRIDS** are produced on soils of high fertility, for the most part the fertile soils of the Missouri and Mississippi river bottomlands. The fields have not been in corn the previous year, thereby shutting out the possibility of contamination by volunteer corn. Production on fertile soil results in strong virile seed with a high germination.

Planting — In planting the foundation seed of **KEYSTONE HYBRIDS** the stocks are planted in the ratio of four to two; that is, four rows of ear parent to two rows of pollen parent. Separate planters are used for planting the ear parent and pollen parent, avoiding the danger of mixing the parental lines through faulty cleaning of planter boxes.

Detasseling — Able crews of experienced men are employed during the detasseling season in **KEYSTONE** production fields. The fields are covered daily, "rain or shine" during the entire season, from the time the first tassel appears until the tassels have been removed from all the ear parent plants in the fields. Complete and timely detasseling is by far the most important factor in hybrid corn production. Allowing only one tassel

to shed pollen freely will result in the contamination of seed for several yards in all directions.

Harvesting — The utmost care is used during the harvesting of **KEYSTONE** seed fields. All seed is harvested by hand under careful supervision to assure that seed from the pollen rows is not mixed with the seed corn. Any ear dropped to the ground before harvest time is discarded regardless of where it is found. The seed is transferred directly from the fields to the point where it is to be processed.

All known modern methods of production from planting to harvesting are followed carefully by **CORNELI SEED COMPANY** leaving nothing undone to make **KEYSTONE HYBRID CORN** conform to the same quality for which other **KEYSTONE SEEDS** have been famous for nearly a century.

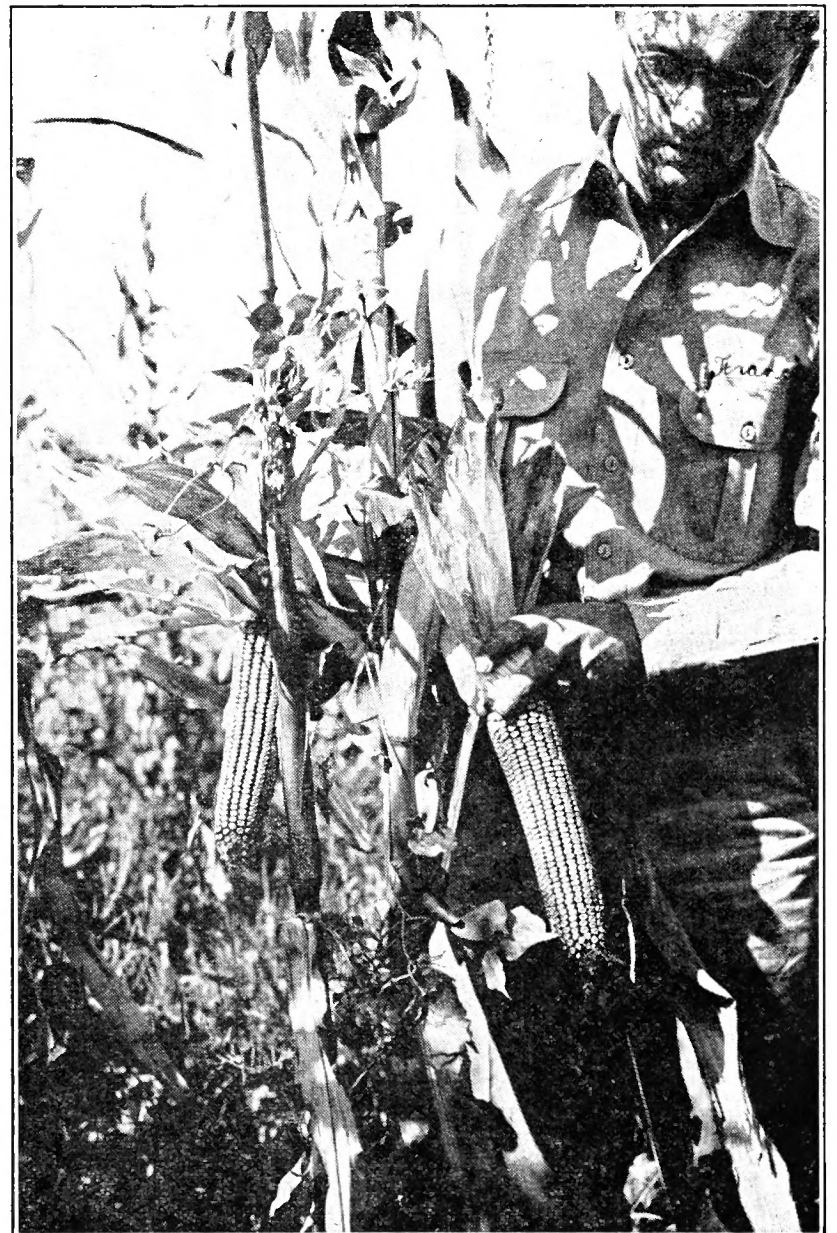


Fig. 4. Keystone Hybrid 38 in Field Trials in Carroll County, Missouri



Fig. 6. Keystone Hybrid 38. Note size, quality, and abundance of ears. Every stalk has a large ear

PROCESSING KEYSTONE HYBRID CORN

KEYSTONE HYBRID SEED is carefully hand selected before shelling. Diseased ears, damaged ears, and undesirable ears of other types are removed from the seed. Only sound ears are used. After all undesirable corn is removed the ears are tipped by hand, removing the small round grades before the corn is shelled.

After shelling, the corn passes over a battery of special corn graders which grade the corn for width, thickness and length, each machine removing only one size or grade of seed. Each grade of seed passes over three to five screens, every grain having to pass inspection over and over again before finally being allowed to go into its grade designation. Length grading is one of the most important steps in corn processing toward securing a uniform stand when planted. Uniform length of kernel is essential in securing an accurate drop by corn planters, especially those of the edgedrop type.

Seed of KEYSTONE HYBRIDS is packed in bushel bags, and sealed by the Corneli Seed Company. This seal is your guarantee and your protection; do not accept seed if the seal has been broken. The bags are sewed by machine with red and green thread to distinguish KEYSTONE SEED from ordinary seed which may be packed in the same type bag.

Behind every bushel of KEYSTONE HYBRID CORN sent out by Corneli Seed Company is nearly a century of dependable service in seeds. Since 1845 this service has meant "bigger and better crops" for their users. We are proud of our record as dependable seedsmen, and assure you, the consumer, that through scientific breeding, careful production, and accurate processing KEYSTONE HYBRID SEED CORN may be depended upon for the same paramount quality that has made KEYSTONE one of the foremost names in the seed world.



Fig. 3. Our Corn Breeder Bags a Tassel to make a Hand Pollination

DESCRIPTIONS

KEYSTONE 38 — Produces large cylindrical ear with medium dent. Single ear to a plant, ear produced low on stalk. Strong stalk of medium height with excellent root system. Lodging and drought resistant. Shows resistance to grasshoppers and root worms. Adapted to Missouri, Northern Arkansas, Southern Illinois, Kentucky and Tennessee. Recommended for soils of average fertility or above. Maturity 120-125 days.

KEYSTONE 40 — A new hybrid released commercially for first time for 1940 planting. Outstanding for yield and lodging resistance. Dark green color. Large stalk of medium height. High degree of resistance to heat, drought and chinch bugs. Seed supply limited. Adapted to Southern half of Illinois and Missouri, Western Kentucky and Tennessee. Maturity 122-127 days.

KEYSTONE MISSOURI #8 — Developed and recommended by Missouri Experiment Station. Heavy yielder, medium hardness. Mostly one ear per stalk. Large stalk and medium to large ear. Seven year average of nearly 35% increase in yield over open-pollinated. Does well on upland as well as bottom soils. Adapted to Missouri, Kentucky, Arkansas, Oklahoma and Kansas. State Certified. Maturity 120-125 days.

KEYSTONE MISSOURI #47 — Recommended for northern two-thirds of Missouri. About 25% of stalks produce two ears. Three year average of about 40% increase over open-pollinated. Shows considerable resistance to heat and drought. Medium sized ears, stalks large and medium height. State Certified. Maturity 115-120 days.

KEYSTONE U. S. 13 — Recommended for Southern Illinois and Missouri. Large ears, medium dent, one to a stalk. Large stalk produces ear at convenient height. Makes best showing on soils of medium to high level of fertility. Drought and heat resistant. Previous tests show better than 35% increase over open-pollinated. Maturity 120-125 days.



Fig. 7. Keystone Missouri Hybrid 8, Central Missouri

KEYSTONE ILLINOIS 960 — Recommended for Southern Illinois, Missouri, Northern Kentucky, Southern Indiana and Southeastern Nebraska. This hybrid is perhaps the most widely adapted hybrid in present production. Five year average shows about 30% increase over open-pollinated. Stalks rather tall but strong, medium sized ears and excellent root system. Does well on soils of average fertility or below. Tends toward two-ears per stalk. Maturity 112-117 days.

KEYSTONE IOWA 13 — Recommended for extreme North Missouri, Southwest Missouri, Eastern Kansas and Southern Iowa. Very drought resistant. Large, well-dented ears. Very soft in comparison to other hybrids. Heavy foliage and abundant grain makes this hybrid an excellent corn for ensilage purposes. Maturity 110-115 days.



THINGS TO REMEMBER WHEN BUYING HYBRID SEED CORN

*Hybrid seed corn is the first-generation cross, or hybrid involving two or more inbred strains of corn.

*Correctly adapted hybrids, in favorable conditions, outyield ordinary varieties 10 to 30 per cent.

*A good hybrid is a very efficient kind of corn, the plants of which are uniform in their good characteristics.

*There is just as much variation between hybrids as there is between ordinary varieties.

*Individual hybrids are more definite in character than individual varieties.

*The full value of hybrid seed exists only in the first generation following the cross. Seed from the crop produced by hybrid seed will yield less than the first generation and may be inferior to that of open-pollinated

*Hybrids are adapted to various localities just as are varieties, and hybrid seed corn should be used only when it is known that the particular hybrid is adapted to, and productive in, the particular locality.

*A poor hybrid is not efficient. The plants are uniform, but uniformly poor.

*KEYSTONE HYBRIDS ARE GOOD HYBRIDS.

PRICES (Semesan Included)

	FLAT EDGEDROP	SMALL ROUND	LARGE ROUND
Keystone 38.....	\$7.00	\$6.00	\$5.00
Keystone 40.....	7.50	6.50	5.50
Keystone Mo. 8.....	6.50	5.50	4.50
Keystone Mo. 47.....	6.50	5.50	4.50
Keystone Ill. 960.....	6.00	5.00	4.00
Keystone U. S. 13.....	7.00	6.00	5.00
Keystone Iowa 13.....	5.00	4.00	3.00

Produced And Distributed By

CORNELL SEED COMPANY
ST. LOUIS MISSOURI

For Sale By



Main Plant, General Office:
101 CHOUTEAU AVE.

